

Remarks

I. Status of the Application and Claims

As originally filed, the present application had a total of 14 claims. These were cancelled in a Preliminary Amendment submitted at the time of filing and new claims 15-28 were added. In the present response, all of these claims were cancelled and new claims 29-43 have been added.

II. The Amendments

The specification of the application was amended to update information regarding reference applications relied upon for priority.

Claims 15-28 were cancelled and were replaced with new claims 29-43. The new claims closely parallel the cancelled claims. The relationship between the new and cancelled claims and other support in the specification is noted in Table I.

Table I: New Claim Support

| New Claim | Support |
|-----------|---|
| 29 | cancelled claim 15 |
| 30, 41 | cancelled claim 26 |
| 31, 42 | Page 8, first full paragraph |
| 32, 43 | cancelled claim 28 |
| 33 | cancelled claim 16, generally following language suggested in the Office Action |
| 34 | cancelled claim 18 |
| 35 | cancelled claim 19 |
| 36 | cancelled claim 21 |
| 37 | cancelled claim 22 |
| 38 | cancelled claim 23 |
| 39 | cancelled claim 24 |
| 40 | cancelled claim 25 |

None of the amendments described above add new matter to the application, and their entry is therefore respectfully requested.

III. Objection to the Specification

On page 2 of the Office Action, the Examiner objects to the paragraph in the specification cross-referencing related applications and indicates that it needs to be updated to reflect the issuance of a patent. In response, Applicants have amended the paragraph as suggested in the Office Action.

The Rejections

On pages 2-8 of the Office Action, the Examiner makes three separate rejections under 35 U.S.C. § 112. Below, Applicants respond to each rejection.

I. First Rejection Under 35 U.S.C. § 112

On pages 2-4 of the Office Action, the Examiner rejects claims 15-28 under 35 U.S.C. § 112, second paragraph on the grounds that the claims are indefinite. It is alleged that claim 15 is indefinite because it appears to be a method for producing a polypeptide and not a single amino acid as recited in the claim. Both claims 15 and 16 are alleged to be indefinite because they simply recite “brnE gene” or “brnF gene.” Instead, the Examiner indicates that the claims should recite structural information that would allow one to identify the proteins being encoded without ambiguity. Claim 15 is also alleged to be indefinite for omitting essential steps in the claimed process and on pages 3 and 4 specific language is suggested which would, presumably, be acceptable. Finally, the Examiner indicates that claim 18 is indefinite because it refers to SEQ ID NO:3, which is a polypeptide, when the claim is actually directed to a polynucleotide. The Examiner suggests that SEQ ID NO:2 may have been intended.

In response, Applicants have introduced several amendments that they believe should overcome the present rejections. First, claim 15 has been amended so that it recites specific structures (SEQ ID NO:3 and SEQ ID NO:5) for proteins. This should serve to eliminate any ambiguity with respect to what is intended. The claims no longer refer to “genes” and claim 18 has been amended so that it now recites “SEQ ID NO:2” rather than “SEQ ID NO:3.”

With respect to claim 15, Applicants are a little confused with respect to the Examiner's allegations that it appears that the claim was originally directed to a method of producing a polypeptide. This is incorrect. The claim was always intended to be directed to a method of producing an amino acid. In any event, any ambiguity that might have existed with respect to this matter should now have been cleared up.

Finally, Applicants have amended the process steps recited in claims 15 and 16 so that they closely parallel the language suggested by the Examiner on pages 3 and 4 of the Office Action. They therefore believe that these claims should now be acceptable.

II. Second Rejection of Claims Under 35 U.S.C. § 112

On pages 4-6 of the Office Action, the Examiner rejects claims 15-28 under 35 U.S.C. § 112, first paragraph, based upon the allegation that the claims fail to meet the enablement requirement of patentability. The main thrust of the Examiner's argument appears to be that the claims are overly broad because they are not limited to particular polynucleotides and polypeptides defined by structures. In the amendments made herein, Applicants define each polynucleotide and polypeptide by reference to a sequence identification number. The Office Action suggests that such claims should meet the enablement requirement and Applicants believe that the present rejection has therefore been overcome.

III. Third Rejection of Claims Under 35 U.S.C. § 112

On pages 6-8 of the Office Action, the Examiner rejects claims 15 and 16 under 35 U.S.C. § 112, first paragraph as failing to comply with the written description requirement of patentability. The basis of this rejection appears to be closely related to the enablement rejection described above. Specifically, the Examiner alleges that certain claims extend beyond the specific structures that have been disclosed in the specification and would include all polypeptides or polynucleotides having a particular function.

As described above, Applicants have now amended all of the claims so that each polypeptide and polynucleotide recited in a claim is defined in terms of a sequence

identification number. Applicants therefore respectfully submit that the Examiner's rejection has been overcome.

Conclusion

In light of the amendments and discussion above, Applicants believe that all of the Examiner's rejections have been overcome. It is therefore respectfully requested that these rejections be withdrawn and that the claims presently pending in the application be allowed.

If, in the opinion of the Examiner, a phone call may help to expedite the prosecution of this application, the Examiner is invited to call Applicants' undersigned attorney at (202) 419-7008.

Respectfully submitted,
FITCH, EVEN, TABIN & FLANNERY

By: Michael A. Sanzo
Michael A. Sanzo
Reg. No. 36,912
Attorney for Applicants

Date: July 26, 2004
1801 K Street, N.W., Suite 401L
Washington, D.C. 20006-1201
(202) 419-7000